



PRODUCTS

**- for better
Fruit Growing**

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R.3 PENNYFOOT

CHLOROCIDE

Chlorocide is the trade name of formulated products containing 20 per cent Chlorbenside (p-Chlorbenzyl p-chlorophenyl sulphide), which was discovered and developed by Boots and which is now available as a Dispersible Powder and a Miscible Liquid.

ADVANTAGES OF CHLOROCIDE

1. Effective both as an early spray and as a summer spray. Complete freedom from red spider attack can be obtained throughout the season by the use of one compound.
2. Thus it is no longer necessary to use DNC Petroleum or summer sprays such as Parathion for Red Spider control.
3. When used early season, red spider damage to the first leaves is prevented.
4. Safe on all varieties of apple, pear and plum.
5. Non-poisonous to human beings, domestic animals and poultry.
6. In trials so far no harmful effects have been observed on predators.
7. Extensive trials have shown freedom from taint and no interference with bottling or canning processes.
8. Chlorocide has the remarkable property of diffusing across and penetrating through leaves to kill eggs and young mites which are not covered directly by the spray.
9. The remarkable persistence of Chlorocide is due to the fact that the active compound, Chlorbenside, instead of breaking down in the leaf to inactive materials, is oxidized to form secondary compounds which are of equal activity in the control of mite eggs and larvæ. This property gives

it greater persistence than any other known Red Spider control. In trials residues of Chlorocide on the foliage have been found to exert an effect even after two or three months.

DIRECTIONS FOR USE ON TOP FRUIT

APPLES

Two applications of Chlorocide are recommended for control throughout the season. The timing of these applications is important for achieving the best control, and is elaborated below.

(A) FIRST (EARLY-SEASON) APPLICATION

The first spray should be applied when the winter eggs are hatching and young mites appear on the foliage—*i.e.*, at 'late pink bud' or at 'petal-fall', but not later. The main effect of this spray is obtained by the persistent effect of the spray deposits on the foliage against the newly-hatched young mites. Excellent results are normally obtained both at late pink and petal-fall, but it is wise to make application at petal-fall if the foliage at pink-bud is excessively small, due, for instance, to cold winds and/or lime sulphur scorch. Since the winter eggs hatch over a period of some weeks in May and June, live young mites are normally found for some time after early-season application, but these are killed before they develop to adult mites and no damage occurs to the first vital leaves. Results should not be judged until about mid-June.

(B) SECOND (SUMMER) APPLICATION

The second application should be made with or between the Codling moth sprays—*i.e.*, in the latter half of June or in the first half of July. After early-season application, very few mites will normally be seen at this time, but in areas where conditions are very conducive to spider, as in S.E. England, it is wise to hit the pest again when its

numbers are low. Control will then normally be maintained to the end of the season.

N.B.—If early-season application is missed, two summer applications are recommended, the first in June and the second three to four weeks later in July. Chlorocide is relatively slow-acting against the adult stage of the mite, and results should not be judged for two to three weeks after treatment.

Spraying later than the end of July is liable to be less effective in control, especially under drought conditions. Also, Chlorocide will not kill the winter eggs being laid from August onwards.

PLUMS AND DAMSONS

If only one application is practical on costs, this is best made early-season at the 'cot-split' stage when the winter eggs are hatching. Summer applications may also be made, as for apple.

PEARS

Where red spider occurs on pears, application may be made at the early fruitlet stage and again three to four weeks later if necessary. Excellent control has also been obtained at the 'white-bud' stage (at $2\frac{1}{2}$ lb. Chlorocide Dispersible Powder per 100 gallons).

RATES OF DILUTION

The standard rates of dilution for use on top fruit are 1 lb. of Chlorocide Dispersible Powder per 100 gallons, or $\frac{1}{2}$ pint Chlorocide Miscible Liquid per 100 gallons, applied twice as recommended above.

N.B.—2 lb. or $2\frac{1}{2}$ lb. Chlorocide Dispersible Powder per 100 gallons may be used at the 'late pink-bud' stage on apple, if there is a heavy infestation of winter eggs present. In the majority of cases, it has not been necessary to

follow this rate of application at 'pink-bud' with a summer application. Where conditions are very conducive to spider, however, there is a tendency to late-season build-up of infestation if only one spray is made. Chlorocide Miscible Liquid is not recommended at rates higher than $\frac{1}{2}$ pint per 100 gallons when mixed with Lime Sulphur or Kramsol.

For Soft Fruit recommendations, see 'Red Spider' under 'The Crop'.

VARIETIES

All the major varieties of apple and the more important commercial varieties of pear and plum have been sprayed, frequently in concentrations far exceeding those laid down for mite control. No damage whatever has been observed following the use of either Chlorocide Dispersible Powder or Chlorocide Miscible Liquid.

Chlorocide must not be used on cucumbers, melons, marrows or on plants nearly related.

MACHINERY AND SPRAYING PRECAUTIONS

Both formulations of Chlorocide have proved satisfactory when used through the usual fruit-spraying equipment and no special spraying precautions are required. It is not advisable to spray with Chlorocide Dispersible Powder too near harvest or there may be an unsightly deposit on the fruit at picking time.

MIXING

No further Wetting or Spreading agent is required when using Chlorocide, but the spray should be well mixed before spraying. Best results follow careful, even spraying so as to wet the foliage thoroughly, but avoiding excess run off.